



CONTENTS OF VOLUME 39

Number 1

Determination of Minimal Upper Paths for Reliability Analysis of Planar Flow Networks	1
DONG WHA LEE & BONG JIN YUM (Korea)	
On a Class of Limit Reliability Functions of Some Regular Homogeneous Series-Parallel Systems	11
KRZYSZTOF KOŁOWROCKI (Poland)	
Representing Cognitive Activities and Errors in HRA Trees	25
DAVID I. GERTMAN (USA)	
Time-Dependent Unavailability Analysis of Standby Components Incorporating Arbitrary Failure Distributions and Three Inspection/Maintenance Policies	35
E. N. DIALYNAS & D. G. MICHOS (Greece)	
Treatment of Uncertainty in Structural Damage Assessment	55
DOROTHY A. REED (USA)	
Analysis of Accelerated Degradation Data in a Two-Way Design	65
DONG SHANG CHANG (Taiwan)	
Understanding Pipeline Failures Using Discriminant Analysis: the North Sea Application	71
R. F. DE LA MARE (UK), Y. L. BAKOUROS (Greece) & G. TAGARAS (France)	
Adaptive Choice of a Safety Management Scheme Upon an Alarm Under Supervisory Control of a Large-Complex System	81
TOSHIYUKI INAGAKI & KOICHI INOUE (Japan)	
Combining Mechanistic Best-Estimate Analysis and Level 1 Probabilistic Risk Assessment	89
H. F. MARTZ, L. L. HAMM, W. H. REED & P. Y. PAN (USA)	
Technical note	
Estimating Expected Waiting-Time in Weibull SPRT	109
K. K. SHARMA, R. S. RANA & R. K. BHUTANI (India)	
Book Reviews	113
Calendar	119

Number 2

Editorial	121
G. E. APOSTOLAKIS (USA)	
Guest Editorial: Societal Risk—Progress Since Farmer	123
G. BALLARD (UK)	
Calculation of Reactor Accident Safety Goals	129
JON C. HELTON & ROGER J. BREEDING (USA)	
Probabilistic Safety Assessment Development in the United States 1972–1990	159
ERIC S. BECKJORD, MARK A. CUNNINGHAM & JOSEPH A. MURPHY (USA)	

The Propagation of Faults in Process Plants—Introduction	171
F. P. LEES (UK)	
The Propagation of Faults in Process Plants: 6, Overview, of, and Modelling for, Fault Tree Synthesis	173
A. HUNT, B. E. KELLY, J. S. MULLHI, F. P. LEES & A. G. RUSHTON (UK)	
The Propagation of Faults in Process Plants: 7, Divider and Header Units in Fault Tree Synthesis	195
A. HUNT, B. E. KELLY, J. S. MULLHI, F. P. LEES & A. G. RUSHTON (UK)	
The Propagation of Faults in Process Plants: 8, Control Systems in Fault Tree Synthesis	211
A. HUNT, B. E. KELLY, J. S. MULLHI, F. P. LEES & A. G. RUSHTON (UK)	
The Propagation of Faults in Process Plants: 9, Trip Systems in Fault Tree Synthesis	229
A. HUNT, B. E. KELLY, J. S. MULLHI, F. P. LEES & A. G. RUSHTON (UK)	
The Propagation of Faults in Process Plants: 10, Fault Tree Synthesis-2	243
A. HUNT, B. E. KELLY, J. S. MULLHI, F. P. LEES & A. G. RUSHTON (UK)	
Calendar	251

Number 3

Special Issue: Reliability Performance, Analysis, and Evaluation of Programmable Electronic Systems, with Emphasis on Chemical Process Applications

Guest Editorial	253
H. M. PAULA (USA)	
Computer Control—Living with Human Error	257
T. A. KLETZ (UK)	
Distributed Control Systems: Cause or Cure of Operator Errors	263
J. A. SHAW (USA)	
Operational Failure Experience of Fault-Tolerant Digital Control Systems	273
H. M. PAULA, M. W. ROBERTS, & R. E. BATTLE (USA)	
Fault Trees and Markov Models for Reliability Analysis of Fault-Tolerant Digital Systems	291
J. B. DUGAN (USA), S. J. BAVUSO (Canada) & M. A. BOYD (USA)	
Reliability and Uncertainty Analysis of Hardware Failures of a Programmable Electronic System	309
P. STAVRIANIDIS (USA)	
Technical notes	
Failure Rates for Programmable Logic Controllers	325
H. M. PAULA (USA)	
Failure Experience of Programmable Logic Controllers Used in Emergency Shutdown Systems	329
C. M. MITCHELL (USA) & K. WILLIAMS (Canada)	
Calendar	222

